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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,277	11/09/2006	Takuya Kodama	80039(302720)	3107
21874 7590 06/08/2009 EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874 BOSTON, MA 02205				
EXAMINER				
YOON, TAE H				
ART UNIT		PAPER NUMBER		
1796				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/568,277

## Applicant(s)

KODAMA ET AL.

## Examiner

Tae H. Yoon

## Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

The amendment after final filed on April 30, 2009 has been entered and examined as requested in RCE filing.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4, 10 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is New Matter rejection since the scope of the combined limitation of the recited "567-900 parts by mass total", "350 to 800 parts by mass of the wollastonite" and "100 to 200 parts by mass of the glass fiber" has no support in specification. Furthermore, the recited minimum amount of 350 parts by mass of the wollastonite cannot be used for the recited total minimum amount of 567 parts by mass since the maximum amount of the glass fiber is 200 parts by mass. Even though example 3 in table 3 shows the combined amount of the wollastonite and the glass fiber being 567 parts by mass total, it is limited to 400 parts by mass of the wollastonite and 167 parts by mass of the glass fiber, and thus the examiner believes that it would not support said combined limitation. Picking and choosing of the amounts from different sections of the

disclosure just in order to overcome the rejection would be improper, and such practice also raises contradicting limitations discussed above.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4, 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited 567-900 parts by mass total is confusing and indefinite since the minimum amount of the wollastonite cannot be 350 parts by mass for the recited total minimum amount of 567 parts by mass since the maximum amount of the glass fiber is 200 parts by mass and thus  $350 + 200 = 550$  which is less than said 567, for example.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2001139768 in view of JP 01229064 A.

JP'768 teaches molding composition comprising 5-35 wt.% of novolac phenol resin with a molecular weight of 50,000 or less, 35-65 wt.% of wollastonite and 5-35 wt.% of glass fiber and a molded article thereof in abstract. Thus, amounts of

wollastonite and glass fiber would encompass the instant amounts as explained below response to applicant's argument. Abstract teaches that unreacted phenol was removed, and thus it would meet the instant amount of monomeric and dimeric phenols. The recited use of a phosphoric acid in a reaction has no probative value in the instant product claims. Also, the intended use has no probative value. The wollastonite is inherently fiber, if not, it is well known by JP'064.

The instant invention further recites Mw and polydispersity (Mw/Mn) of said novolac phenol resin over JP'768. The teaching of Mw of 50000 or less encompasses the instant Mw of 3700 or less, and novolac resin with the instant Mw and polydispersity (Mw/Mn) is well known as taught by JP'064. Abstract of JP'064 teaches novolac phenol resin having a Mn of 500-700 and Mw of 1000-1500 with less than 3% of unreacted phenols. Table 2 on page 3 of JP document shows Mn 550 and Mw 1100, Mn 600 and Mw 1200, and Mn 600 and Mw 1320 which would meet the instant polydispersity (Mw/Mn).

It would have been obvious to one skilled in the art at the time of invention to utilize novolac resin with the instant Mw and polydispersity of JP.064 in JP'768 with wollastonite and glass fibers in the instant amounts since amounts of fillers are overlapped and since choosing a range within a range is a *prima facie* obviousness and since novolac phenol resin having the instant Mw and polydispersity is well known in the art as taught by JP'064 and since the teaching of Mw of 50000 or less in JP'768 encompasses the instant Mw absent showing otherwise.

Claims 1-4, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 01229064 A in view of JP 2001139768.

English abstract of JP'064 teaches novolac phenol resin having a Mn of 500-700 and Mw of 1000-1500 with less than 3% of unreacted phenols. Table 2 on page 3 of JP document shows Mn 550 and Mw 1100, Mn 600 and Mw 1200, and Mn 600 and Mw 1320 which would meet the instant polydispersity ( $Mw/Mn$ ). JP'064 further teaches employing a mixture of various fibers including wollastonite and glass fibers, and example show employing total 75 vol.% of fillers. Again, the recited use of a phosphoric acid and a mol ratio of a phenol and an aldehyde in a reaction has no probative value in the instant product claims. Applicant's asserted high yield in said reaction is not a claimed limitation. An invention in a product-by-process is a product, not a process. See In re Brown, 459 F2d 531, 173 USPQ 685 (CCPA 1972) and In re Thorpe, 777 F2d 695, 697, 227 USPQ 964 (Fed. Cir. 1985). Also, the intended use has no probative value.

The instant invention further recites amounts of said wollastonite and glass fibers over JP'064. However, use of a higher amount of fillers in novolac compositions in order to improve mechanical properties is well known practice as taught by English abstract of JP'768 discussed above.

It would have been obvious to one skilled in the art at the time of invention to utilize instant amounts of a mixture of wollastonite fiber and glass fiber in JP'064 with teaching of JP'768 since JP'064 teaches employing a mixture of various fibers including

wollastonite and glass fibers and since use of a mixture of wollastonite and glass fiber in the instant amounts is also well known as taught by JP'768 absent showing otherwise.

Above prior art rejections are maintained with following response.

Applicant's assertion based on the calculation that JP'768 teaches the upper limit of 500 parts by mass and that JP'064 teaches 1580 pars by mass are not persuasive for following reasons:

1. Applicant asserted that the amount of fillers in JP'064 is 1580 pars by mass, but the instantly recited transitional term "comprising" is an "open" term, in the sense that it leaves the claim open for the inclusion of unspecified ingredients, "even in major amounts." *Ex parte Davis and Tuukkanen*, 80 USPQ 448, 450 (BPAI 1948). *See also North Am. Vaccine, Inc. v. American Cyanamide Co.*, 7 F.3d 1571, 1585 (Fed. Cir. 1993). Because the term "comprising" is one of enlargement, it can cause a claim to be broader than the invention. *See In re Fenton*, 451 F.2d 640, 642 (CCPA 1971).

Thus, applicant's calculation including the phenolic novolak resin with Mw of 50000 or more and fillers which are not fibrous as pointed out by applicant other than the wollastonite and glass fiber (and steel fiber) has no probative value since the instant claim 1 recites that Mw of the phenolic novolak resin is 3700 or less and since the examiner's calculation is based on the phenolic novolak resin with 50000 or less. Also, applicant's assertion based on chemical differences has little probative value since the instantly recited transitional term "comprising" permits presence of other components including the steel fiber (as discussed above case laws). JP'768 teaches Mw of 50,000

**or less** which would include and encompass the instant lower Mw and thus JP'064 with the instant Mw and polydispersity is combined.

2. The instant claim 1 recites that Mw of the phenolic novolak resin is 3700 or less, and the instantly recited amounts of the wollastonite and glass fibers are based on said phenolic novolak resin with Mw of 3700 or less. Thus, for example, choosing following components fall within the scope of JP'768 would meet the instant amounts (note that the total amount below is 100 wt%. The instant claims do not recite wt%, but "parts by mass" and "comprising", and thus the total amount of the instantly recited mandatory components can be any wt% below 100 wt%.).

10 wt% of a phenol resin (a) with Mw of 50000 or more,

10 wt% of a phenol resin (a) with Mw of 50000 or less,

5 wt% of hexamethylene tetramine,

5 wt% of clay,

60 wt% of wollastonite and

10 wt% of glass fiber.

Thus, the amount of the wollastonite would be 600 parts by mass based on 100 parts by mass of phenol resin (a) with Mw of 50000 or less, and that of the glass fiber would be 100 parts by mass based on 100 parts by mass of phenol resin (a) with Mw of 50000 or less assuming same specific gravity (Said total parts by mass would go up or down when specific gravity of wollastonite and glass fiber is different from that of the resin). Thus, the total would be 600 parts by mass contrary to applicant's assertion. Note that the phenol resin (a) with Mw of 50000 or more, hexamethylene tetramine and

clay (which is not fibrous filler) are not used in the calculation since they belong to other components permitted under the recited "comprising".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tae H Yoon/  
Primary Examiner  
Art Unit 1796

THY/June 4, 2009